Attorney Docket No. 287/9

UNITED STATES PATENT APPLICATION FOR:

CARABINER COMMUNICATION DEVICE

INVENTOR:

EDWARD GOLDBERG

CERTIFICATE OF EXPRESS MAIL

Express Mail" mailing label number EL509242396US

Date of Deposit July 2, 2003

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Mail Stop Patent Application, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450

Timothy X. Gibson
(Typed or printed name of person mailing paper or fee)

(Signature of person mailing paper or fee)

CARABINER COMMUNICATION DEVICE

FIELD OF THE INVENTION

The invention relates generally to carabiner-type attachment devices adapted to use on portable personal communication devices such as telephone handsets.

BACKGROUND OF THE INVENTION

Carabiners have long been in use for providing a means for attaching articles to each other. Such devices have numerous applications, such as for example enabling multiple articles to be secured to a backpack, purse, handbag, key chain or the like. United States Patent No. 5,005,266 discloses a typical carabiner-type attachment device.

Portable personal communication devices such as cellular telephones, pagers and personal digital assistants (PDAs) are ubiquitous and are considered by many to be indispensable. However, even with advancements directed to reducing the size of these devices often it is inconvenient or undesirable to place these devices in a pocket because they can cause discomfort especially when the device is in a pants pocket and the owner is seated. These devices also tend to create an unsightly lump in any garment in which it is concealed. It is also often the case that a user prefers the device be easily accessible or in sight rather than stowed away in a pocketbook, briefcase or jacket pocket in order to be able to quickly ascertain the identity of a caller or respond to a call. Accordingly it is useful to be able to attach such devices to a garment, strap or bag. Such an adaptation is also desirable to avoid the misplacing of the device. It is commonplace for a cell phone, pager, PDA or the like to be left behind in a car, on

the table of a restaurant, on a desk, on a kitchen counter or the like because the device was left out so it could be heard or viewed, only to be forgotten when it came time to leave.

Heretofore communication devices have been equipped with resilient clips for attachment purposes. These clips are not suitable for all applications, however. For instance, such clips are not well suited for securely attaching a communications device to a strap, belt loop or the like because of the tendency of the clip to disengage the article to which it is attached as the communication device is jostled. Most of the time these clips are attached to a case, which in turn contains the cell phone or other device. Where the clip is integral with the device, it is almost inevitable that the clip will break due to stress placed on the clip. In addition, known clips and attachment devices tend to add undesirable bulk to the communication device.

Moreover, when personal communication devices having an attachment device on the top end are attached to and depend from a belt loop the text screen is typically oriented right side up, resulting in an upside down screen when the device is flipped upward to view. This is impractical in many cases

United States Design Patent No. 459,338 discloses an ornamental design for a carabiner radio in which the carabiner is integral with the top of the radio. However a radio is simply a device for receiving sound broadcasts and is not subject to the aforementioned considerations. That is, radios are not considered indispensable in our society, they are not items that must be "answered" or viewed periodically to determine callers, etc. Moreover, the attachment to the top of the device results in the aforementioned drawback of upside down text or controls when the device is flipped up to read when attached to a belt loop. In addition the ornamental design of the 459,338 patent does not teach or suggest a carabiner communication device in which a carabiner-

type attachment device can be concealed in the body of the communication device until such time as it is needed.

Presently on the market are straps attached to carabiners wherein the strap is adapted to be mounted to a cell phone. These devices are designed to have the carabiner oriented near the top of the cell phone. Such a design is disadvantageous for the aforementioned reasons.

United States Published Patent Application 2002/0173279 discloses a mobile electronic communications device with a housing and an ornament attachment mechanism. The ornament attachment mechanism disclosed is not dimensioned for use as an attachment means for anything other than small ornaments such as earrings, bracelets, necklaces and the like. The disclosed device does not teach or suggest providing a carabiner for a communications device wherein the carabiner is oriented to provide a user an efficient way to attach the communication device to an article of clothing, purse or the like and still be easily readable.

United States Patent No. 6,223,402 discloses a clip for a test telephone. The disclosure relates to an arrangement of a clip so that the clip can be easily engaged to an object to be hooked. This device relates to a test phone for telephone workers and does not address the concerns relating to a personal communication device mentioned hereinabove.

Therefore it would be a considerable advantage to be able to securely and selectively attach the communication device to an article such as a belt or belt loop in a manner that enables a user to easily read text on a message screen of the device. It would also be an advantage in that it would permit the secure, attractive and comfortable carriage of the device without the need to place the device in the pocket of a garment. It would also be advantageous for a personal communication device to be provided with a carabiner-type attachment device that could be concealed within the body of the device when not in use.

SUMMARY OF THE INVENTION

The present invention provides novel carabiner-type attachment means for personal communication devices. In one embodiment the carabiner-type attachment device extends from the bottom of said communication device. The attachment device is in one embodiment integral with the communication device. Alternate embodiments provide novel means for concealing the carabiner-type attachment device within the body of the communication device.

OBJECTS OF THE INVENTION

It is an object of the present invention to provide a carabiner-type attachment for a communication device.

It is another object of the present invention to provide a carabiner-type attachment for a communication device wherein the carabiner-type attachment device is integral with the communication device.

It is another object of the present invention to provide a carabiner-type attachment for a communication device wherein the carabiner-type attachment device extends from the bottom end of the communication device.

It is another object of the present invention to provide a carabiner-type attachment for a communication device wherein the carabiner-type attachment device is detachably connected to the communication device.

It is another object of the present invention to provide a carabiner-type attachment for a communication device wherein the carabiner-type attachment device is in one position concealed within said communication device and also extendible from said communications device.

It is a further object of the present invention to provide a carabiner-type attachment for a communication device wherein the carabiner-type attachment permits safe and secure attachment of the writing instrument to luggage, belt loops, towel racks, wall hooks, utility belts, backpacks and the like.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a front view of a preferred embodiment of the invention;

FIG. 1A is a front exploded view of the preferred embodiment of FIG. 1;

FIG. 1B is a top plan view of a preferred embodiment of the attachment device of FIG. 1A;

FIG. 1C is a bottom plan view of a preferred embodiment of the attachment device of FIG. 1A;

FIG. 1D is a bottom view of a further preferred embodiment of the attachment device of FIG. 1A;

FIG. 1E is a front view of a preferred embodiment of the attachment device of the present invention;

FIG. 1F is a front view of a most preferred embodiment of the attachment device of the present invention;

FIG. 2 is a front view of another preferred embodiment of the present invention;

FIG. 3 is a back view of another preferred embodiment of the present invention;

FIG. 3A is a side cross sectional view of the embodiment of FIG. 3 taken through line A-A';

FIG. 3B is a side cross sectional view of the embodiment of FIG. 3 taken through line A-A';

FIG. 3C is a back view of yet another preferred embodiment of the present invention;

FIG. 4 is a back view of another preferred embodiment of the present invention;

FIG. 4A is a side cross sectional view of the embodiment of FIG. 4 taken through line B-B';

FIG. 4B is a side cross sectional view of the embodiment of FIG. 4 taken through line B-B' when the attachment device is in an open position;

FIG. 5 is a back view of a further embodiment of the present invention;

FIG. 5A is a back view of the present invention as shown in FIG. 5;

FIG. 5B is a back view of another preferred embodiment of the present invention;

FIG. 5C is a back view of the preferred embodiment of the present invention as shown in FIG. 5B;

FIG. 6 is a back view of another preferred embodiment of the present invention;

FIG. 6A is a back view of the preferred embodiment of the present invention according to FIG. 6 when the attachment device is in an open position;

FIG. 6B is a side cross sectional view of the embodiment of FIG. 6 taken through line D-D';

FIG. 6C is a side cross sectional view of the embodiment of FIG. 6A taken through line D-D' when the attachment device is in an open position;

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

In the following description, for purposes of explanation, specific numbers, materials and configurations are set forth in order to provide a thorough understanding of the invention. It will be apparent, however, to one having ordinary skill in the art that the invention may be practiced without these specific details. In some instances, well-known features may be omitted or simplified so as not to obscure the present invention. Furthermore, reference in the specification to "one embodiment" or "an embodiment" means that a particular feature, structure or characteristic described in connection with the embodiment is included in at least one embodiment of the invention. The appearances of the phrase "in one embodiment" in various places in the specification are not necessarily all referring to the same embodiment.

Now referring to **FIGs. 1** and **1A** a preferred embodiment of the device **2** comprises essentially a communication device **10** and at least one attachment device **30**. Communication device **10** may comprise any suitable communication device including but not limited to a cellular telephone, pager, PDA or the like as are well known in the art. Communication device **10** comprises a bottom end **12**, a top end **14**, a front side **16** and a back side **18**.

Attachment device 30 comprises at least one body member **32** and one openable gate member **38**. Now referring to **FIG. 1** in a preferred embodiment body member **32** comprises at least a first elongated section comprising a first end **34** and a second end **36** and is typically fabricated of any material suitable for attachment devices such as but not limited to bare or coated metal, wood, rubber, plastic, combinations thereof or any other suitable material as is well known in the art. In a preferred embodiment gate member **38** comprises an elongated member pivotably attached at one end to an end **34** or **36** of said body member **32**. The other end of gate

member **38** contacts or is in close proximity to the other end **34** or **36** of said body member **32** when said gate **38** is in a closed position. In a preferred embodiment gate member **38** is inwardly openable. Gate member **38** is fabricated of any suitable material as recited above for body member **32**, but does not necessarily need to be of the same material as that of body member **32**. Gate member **38** may be separately molded and attached to body member **32** by means of a pin or other means well known in the art. In a preferred embodiment body member **32** is curvilinear. In a most preferred embodiment attachment device **30** is formed in the shape of a carabiner but other shapes are contemplated by the present invention.

In another embodiment (not shown) attachment device **30** may comprise one elongated section extending from said communication device **10,** wherein gate member **38** is pivotably attached to said communication device **10**.

Now referring to **FIG. 1E**, in one embodiment body member **32** comprises an elongated section comprising at least a first end **34**. Gate member **38** comprises an elongated member integrally attached to said body member **32** and the integral body **32** and gate member **38** are fabricated of a resilient material such as but not limited to rubber, plastic, thin metal or any other suitable resilient material as is well known in the art. A first end **39** of gate member **38** contacts or is in close proximity to an end **34** of said body member **32** when said gate **38** is in a closed position. In this embodiment a resilient attachment device is formed without a pivoting hinge. The gate member **38** simply deforms when pressure is applied and resiliently returns to its original position when pressure is released. In a most preferred embodiment attachment device **30** is formed in the shape of a carabiner but other shapes are contemplated by the present invention.

Now referring to **FIGs. 1-1F** in a preferred embodiment attachment device **30** is adapted to be removably attachable to communication device **10**. Attachment device **30** is provided with a means for removably connecting attachment device **30** to communication device **10**. Now referring to **FIG. 1B** attachment device **30** comprises an opening **40** opposite gate member **38** for receiving bottom end **12** of communication device **10**. In a most preferred embodiment the opening **40** of attachment device **30** further comprises an interior lining **42** such as but not limited to a rubber lining which securely engages, such as by friction, the outer surface of communication device **10**. Lining **42** may optionally be a Velcro® lining adapted to engage a complementary Velcro® surface attached to said communication device **10**. Other means of releasably attaching said attachment device **30** to said communication device **10** include but are not limited to a clip-on means, such as for example at least one clip engagable to at least one lip disposed on said communication device.

Now referring to **FIG. 1F**, in a most preferred embodiment the means for removably connecting attachment device **30** to communication device **10** comprises a face plate **44** detachable from said communication device **10** extending from said attachment device **30**. Detachable face plate **44** may be any detachable face plate known in the art such as but not limited to those typically sold aftermarket to provide a user the ability to change the outward appearance of the communication device.

Now referring to **FIGs. 1** and **1A**, in a most preferred embodiment attachment device **30** further comprises opening **46** that is oriented over the mouthpiece of a communication device when attachment device **30** is attached to said communication device **10**. Now referring to **FIGs. 1B** and **1C** attachment device further comprises opening **48** to provide accessibility to the jacks (not shown) typically present on communication devices. Gate member **38** may be offset

to provide easy access to said jacks through opening **48** when attachment device **30** is engaged to communication device **10** according to this embodiment.

The figures depict an embodiment in which attachment device **30** is receivable on the bottom end **12** of communication device **10** however it is contemplated the attachment device may be adapted to be attached to the top end **14** of said communication device **10**.

Now referring to **FIG. 2**, in an alternate preferred embodiment attachment device **30** is integrally formed with communication device **10**. Such integral embodiment may be achieved by any means known in the art appropriate for the material employed in construction of the device **2**, such as for example molding where said attachment device **30** is fabricated of plastic.

Now referring to **FIGs. 3-3C** in an alternate preferred embodiment attachment device **30**, formed in substantially the same manner as described heretofore with respect to **FIGs. 1-2**, is extendible from communication device **10**. Attachment device **30** is secured in a cavity **50** formed in communication device **10**. Engagement rails **60** extend from attachment device **30** and are slidably engaged in channels **52** formed in said communication device. Rails **60** preferably comprise means such as but not limited to enlarged ends **62** for preventing disengagement of said rails **60** with channels **52** when said attachment means is extended from said communication device **10**. Channels **52** may comprise a lip **54** to engage said enlarged end **62** to prevent disengagement. Attachment means **30** may be extended from a nested position within said communication device **10** by a flick of the wrist or optionally, referring to **FIG. 3C** (showing the attachment device extendible from the top portion **14** of the communication device **10**), a cutout **56** may be formed in the back side **18** of said communication device **10** so that attachment device **30** may be manually extended. Alternatively attachment means **30** may include a means for extending the attachment device **30** such as a tab or flange (not shown) that

may be grasped by a user. Preferably said cavity **50** and channels **52** are formed toward the back portion **18** of the communication device **10** to avoid interference with the electronics disposed closer to the front face **16** of the communication device **10**. While this embodiment of the present invention (as well as that of **FIGs. 4-4B**) depicts two rails **60** it is contemplated that a single or multiple rails **60** may be employed. In addition, channel **52** may comprise many forms and the means for preventing disengagement of rails **60** may likewise take many forms as will be apparent to those having ordinary skill in the art.

Now referring to **FIGs. 4-4B** in a preferred embodiment the section of back portion **18** of communication device **10** that conceals attachment device **30** within chamber **50** when attachment device **30** is not extended in **FIGs. 3-3C** is removed, eliminating chamber **50** and leaving attachment device **30** exposed even when not extended from said communication device. In this way attachment device **30** nests snugly in a recess against communication device **10**. In this embodiment attachment device **30** may also be adapted to extend from top portion **14**.

Now referring to **FIGs. 5-5C** in an alternate preferred embodiment attachment device **30**, again formed in substantially the same manner as described heretofore with respect to **FIGs. 1-2**, is rotatably extendible from communication device **10**. Attachment device **30** is secured in a cavity **70** formed in communication device **10**. Alternatively, similar to the embodiment of **FIGs. 4-4B** a section of back portion **18** may be removed or not included. In this way attachment device **30** nests snugly in a recess against communication device **10**. Attachment device **30** is engaged to said communication device by spindle **72**. If a section of back portion **18** is present covering at least a portion of said attachment device **30**, cutout **74** is provided so that a user can access attachment device **30** and rotatably move said device in the direction of arrow **C**. Alternatively, attachment device **30** may comprise a tab or flange (not shown) as

discussed hereinabove that may be grasped by a user to rotatably move said attachment device **30** from its nested position. Attachment device **30** is rotatable proximal the bottom **12** (**FIGs. 5** and **5A**) or top **14** (**FIGs. 5B** and **5C**) of communication device **10** and engaged to engagement means **76**. Engagement means **76** can be any device adapted to retain attachment device **30** in a fixed position such as but not limited to a clip. Where engagement means **76** is a clip it is preferably formed of a resilient material so that attachment device **30** can be easily disengaged using manual force. Engagement means **76** is adapted so that attachment device **30** will not be disengaged during normal use. Alternatively engagement means **76** may be another engagement means known to those having ordinary skill in the art. In yet a further alternative, the user of the device **2** can opt out of using the engagement means **76** and simply allow attachment device **30** to freely swing around spindle **72**.

Now referring to **FIGs. 6-6C** in yet a further alternate preferred embodiment attachment device **30** is rotatably extendible from communication device **10**. Attachment device **30** is rotatably secured in a recess **80** formed in communication device **10**. As best seen in **FIGs. 6** and **6B**, in the closed position attachment device **30** preferably nests snugly in recess **80** against communication device **10,** thereby maintaining a smooth outer profile of device **2**. Attachment device **30** is engaged to said communication device by rotatable attachment means **82**. Now referring to **FIGs. 6B and 6C** attachment device **30** is rotatably movable outwardly from said communication device **10** in the direction of arrow **E** such that in a fully opened position (**FIG. 6C**) attachment device **30** is extended from and oriented in substantially the same plane as communication device **10** and proximal the bottom **12** (**FIGs. 6-6C**) or top **14** (not shown) of communication device **10**. Optionally, known engagement means (not shown) may be employed to retain attachment device **30** fixed in either an open or closed position.

While the preferred embodiments have been described and illustrated it will be understood that changes in details and obvious undisclosed variations might be made without departing from the spirit and principle of the invention and therefore the scope of the invention is not to be construed as limited to the preferred embodiment.